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3 **FEMA Strategic Review Steering Committee**
4 **Concept Paper: Focus on Radiological Aspects of REP**
5 **vis-a-vis All-Hazards Aspects of REP**
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7 **ISSUE**
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9 Would the Radiological Emergency Preparedness (REP) Program be more effective and
10 streamlined by focusing more on radiological activities and less on non-radiological activities?
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12 **BACKGROUND**
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14 During the course of the review of the issue of inclusion of REP in the All-Hazards (generic)
15 approach to emergency planning, a related issue was identified by the Steering Committee
16 concerning whether the efforts of State and local governments as well as FEMA should be
17 focused on those activities in REP unique to radiological emergencies and less on the non-
18 radiological aspects common to all emergencies. The issue was approached by first
19 identifying those planning standards and evaluation criteria in NUREG-0654/FEMA-REP-1,
20 Rev.1, and the Exercise Objectives in FEMA-REP-14 which could be considered unique to
21 radiological emergencies and those activities common to all emergencies. Secondly, the
22 regulatory basis for REP as presented in NRC and FEMA regulations and the NRC/FEMA
23 Memorandum of Understanding (MOU) was examined to determine if there were any
24 regulatory impediments to emphasizing the radiological aspects of REP while shifting the
25 preparedness for the non-radiological aspects of REP to other all-hazards plans. Finally, the
26 extent of changes that would be required in FEMA planning and exercise guidance documents
27 to accommodate this change in REP program emphasis were examined. The Steering
28 Committee was cognizant in its review and analysis that, although a shift in emphasis might
29 occur, the bottom line remains that all EP planning standards must still be met and the
30 resulting REP program must continue to provide reasonable assurance. However, how this
31 would be accomplished may differ from what is currently in place.
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33 **ANALYSIS**
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35 In the analysis of the All-Hazards issue, the subject of plan format was addressed. Several
36 States have modified their plans and “integrated” the REP-specific elements into the general
37 body of the plan, the result being that such a format resembles the function-based, all-hazards
38 Emergency Operations Plan (EOP) format recommended in SLG-101, *Guidance for All*
39 *Hazards Emergency Planning* (September 1996). However, if the all-hazards approach is
40 simply perceived as a re-formatting of the REP plans to fit the all-hazards EOP format, then
41 there is little to be gained, from a strategic viewpoint, by considering REP under all hazards.
42 Regardless of the plan’s format, the emergency management personnel working with it must
43 be knowledgeable in its contents and procedures and be able to demonstrate the plan’s
44 effectiveness in an exercise.

Review of Planning Standards and Exercise Objectives

A review of the Planning Standards indicated to the Steering Committee that it is not useful to try to ascribe Planning Standards as being radiological or non-radiological in scope. The Planning Standards usually contain aspects of both. The Steering Committee determined it would be more useful to look at the Exercise Objectives in FEMA-REP-14 and, within those Objectives, to the Demonstration Criteria.

The Committee's initial review indicated that Objectives 15, 16, 17 and 19 appear to be non-radiological functions. Objectives 1 - 4, 10 - 13, 23, 30, 32 and 33 appear to be All-Hazards, but contain radiological components. Objectives 5 - 9, 18, 20 - 22, 24 - 29 and 31 appear to have only radiological functions.

Emphasizing the radiological aspects of REP, however, does not eliminate the non-radiological aspects from concern. The non-radiological activities would still need to be verified as adequate, even if demonstrated in an all-hazard framework.

The States, including those with all-hazards plans, have been demonstrating the capability to meet the REP-14 Objectives in exercises. The question is whether it is practicable, with the maturity of the REP Program, to separate the Objectives, Demonstration Criteria and Points of Review that are considered non-radiological, and, if so, which ones? It could be problematic. For example, Objective 4, Communications, appears to be a generic preparedness and response function. However, closer inspection of some of the Demonstration Criteria reveals specific radiological functions, e.g., communications between plant operators and the Emergency Operations Center and communications from the EOC to Field Teams monitoring the environment. Another example is the NUREG-0654 element which requires continuous 24-hour emergency operation, and therefore staffing. This element is described in Objective 30, where once every six years a shift change is demonstrated with Shift 1 briefing Shift 2 on the status of the emergency and the emergency response. A fundamental question for these Objectives, if they were under consideration for separation, would be: how important are these activities in connection with ensuring an adequate level of preparedness? Would separating these activities reduce preparedness?

There is also a much larger consideration, and that is the fundamental concept of the integrated exercise. NRC and FEMA regulations require an exercise to test the integrated capabilities of appropriate State and local government authorities and utility emergency personnel, and include testing the major observable portions of the onsite and offsite emergency plans, and mobilizations of State, local and licensee personnel and other resources in sufficient numbers to verify the capability to respond to the accident scenario. In order to conduct a truly *integrated* exercise and test real-time capability, it is necessary to evaluate generic response functions such as Emergency Communications, Direction and Control, and Alert and Notification (EBS/EAS) along with the radiological functions. It would be difficult to have an exercise that only involves radiological activities when the "glue" for demonstrating an integrated response to a simulated emergency lies in the non-radiological functions.

Emphasizing the non-radiological aspects of REP may require some fundamental changes in the current REP Program. It may be difficult to separate some of the all-hazards/generic response functions from the radiological functions. Issues which need to be addressed include such activities as mobilization of specific response staff with capable back-up for continuous 24-hour operations; activation of an Emergency Operations Center with appropriate equipment to provide for essential emergency communications; and supporting decision-makers with sufficient information for developing and implementing protective actions for the public.

Perhaps an alternative approach in separating the radiological aspects from the non-radiological aspects would be doing the radiological response activities in discrete drills and combining these drills with “readiness appraisals,” expanded exercise credit, and an expanded Annual Letter of Certification. Under this approach, Discrete Drills would entail:

- Field Monitoring Teams demonstrating their expertise in using survey meters and taking samples;
- Emergency workers demonstrating their capability and knowledge in using dosimetry, in radiological exposure control and decontamination and in KI use;
- Those with Direction and Control responsibilities showing an understanding of the technical information coming from the utility, radiological health officials, etc.
- Emergency medical staff (ambulance and hospital staff) demonstrating their capability, and the medical protocols for treating contaminated individuals; and
- Health Physics Drills including demonstration by the staff of their capability to do dose projections and dose assessments.

In conjunction with these discrete drills, there would be “readiness appraisals,” that is, walk-throughs, inspections, inventory/roster reviews, etc. Such a “readiness appraisal” could apply to an Emergency Operations Center, and may satisfy many of the non-radiological requirements in FEMA-REP-14. In some situations, exercise credit may be given to State and local organizations that respond to real emergencies or certain non-radiological response activities. And the State assessment of plans and preparedness would be reported in an expanded Annual Letter of Certification. The non-radiological objectives could be demonstrated in all-hazards exercises, with the results coordinated with the evaluations of the discrete drills involving the radiological functions.

This alternative approach may permit FEMA to make findings on the adequacy of offsite plans and preparedness. Such an approach could, perhaps, provide an opportunity for requiring less frequent integrated REP exercises.

Review of Regulatory Basis

A review was conducted of the regulatory basis for REP including the NRC and FEMA regulations and the NRC/FEMA Memorandum of Understanding (MOU) to determine if there were any regulatory impediments to focusing on those activities unique to radiological emergencies in REP and less on those aspects common to all emergencies. Emergency preparedness (EP) is covered in NRC regulations 10 CFR 50.33, 50.47, 50.54, and Appendix E to 10 CFR 50, and in FEMA regulations 44 CFR 350, 351, and 352. FEMA is responsible for assessing the adequacy of offsite EP and providing its findings and determinations to the NRC. For operating nuclear power plants, the NRC bases its findings on the overall state of emergency preparedness on a review of FEMA's findings and determinations as to whether State and local emergency plans are adequate and capable of being implemented and on the NRC's assessment of the adequacy of the licensee's onsite emergency plans. (50.54(s)(2)(ii)) The MOU indicates that FEMA's findings on preparedness are based on an assessment that the offsite plans are (1) adequate as measured against the planning standards and evaluation criteria of NUREG-0654 and (2) that there is reasonable assurance the plans can be implemented as demonstrated in exercises. This assumes that a periodic exercise (now biennial) will be conducted to test the plan and to verify its implementability.